



*DELAWARE HEALTH AND SOCIAL SERVICES*

Division of Public Health

Bureau of Epidemiology

## **Central Line Associated Bloodstream (CLABSI) Rates and Utilization in Intensive Care Units, Delaware July-September, 2009**

Delaware Health and Social Services  
Division of Public Health  
Health Promotion and Disease Prevention  
Bureau of Epidemiology

March 2010

Note: For a full description of the background and methodology for this report, please refer to Delaware Hospital Infection Reporting Data: 2008, which can be found at the following website:

[http://www.dhss.delaware.gov/dhss/dph/dpc/files/hai\\_report\\_2008\\_final.pdf](http://www.dhss.delaware.gov/dhss/dph/dpc/files/hai_report_2008_final.pdf)

**Central Line Associated Bloodstream (CLABSI) Rates in Intensive Care Units, Delaware, 3<sup>rd</sup> Quarter (July- Sept) and as reported by the National Health Safety Network (2006-2008)**

| <b>Hospital</b>                                      | <b>Number of Infections</b> | <b>Number of Central Line days<sup>1</sup></b> | <b>Hospital CLABSI Rate/1000<sup>2</sup></b> | <b>NHSN CLABSI Rate/1000<sup>3</sup></b> | <b>CLABSI Rate Percentile<sup>4</sup></b> | <b>p value<sup>5</sup></b> | <b>Interpretation<sup>6</sup></b>                  |
|--|-----------------------------|--|--|--|---|----------------------------|--|
| A. I. duPont Hospital for Children                   | 0                           | 883  | 0.0  | 3.0                                      | 10%                                       | 0.0735                     | Rate is not statistically different than NHSN rate |
| Christiana Care Health System-Christiana Hospital    | 1                           | 960  | 1.0  | 2.6                                      | 24%                                       | 0.2945                     | Rate is not statistically different than NHSN rate |
| Christiana Care Health System – Wilmington Hospital  | 2                           | 293  | 6.8  | 2.1                                      | 96%                                       | 0.1277                     | Rate is not significantly different than NHSN rate |
| St. Francis Hospital                                 | No report                   |  |  |  |   |                            |  |
| BayHealth Medical Center – Kent General Hospital     | 1                           | 405  | 2.5  | 1.5                                      | 81%                                       | 0.4544                     | Rate is not statistically different than NHSN rate |
| BayHealth Medical Center – Milford Memorial Hospital | 0                           | 217  | 0.0  | 1.5                                      | 50%                                       | 0.7228                     | Rate is not statistically different than NHSN rate |
| Beebe Medical Center                                 | 0                           | 389  | 0.0  | 1.5                                      | 50%                                       | 0.5588                     | Rate is not statistically different than NHSN rate |
| Nanticoke Memorial Hospital                          | 0                           | 327  | 0.0  | 1.5                                      | 50%                                       | 0.6224                     | Rate is not statistically different than NHSN rate |

<sup>1</sup> The total number of days of exposure to the device (central line) by all of the patients in the selected population (ICU) during the selected time period (2008).

<sup>2</sup> (Infections/device-days) x 1000

<sup>3</sup> Rate for all participating NHSN hospitals of that location type (the patient care area to which a patient is assigned while receiving care while in the facility).

<sup>4</sup> An estimate of where the local facility rate falls on the distribution of the rate for all NHSN facilities of that type of location. For example, a percentile of 75% means that 75% of NHSN hospitals were below this rate.

<sup>5</sup> The probability value from a significance test comparing the local hospital to the NHSN aggregate rate.

<sup>6</sup> Significance criteria is p<0.05 (95% confidence)

**Central Line Utilization Rates in Intensive Care Units, Delaware, 3<sup>rd</sup> Quarter (July-Sept) 2009 and as reported by the National Health Safety Network (2006-2008)**

| <b>Hospital</b>                                      | <b>Number of Central Line days<sup>7</sup></b> | <b>Number of Patient days<sup>8</sup></b> | <b>Utilization Ratio<sup>9</sup></b> | <b>NHSN Utilization Ratio<sup>10</sup></b> | <b>Utilization Ratio Percentile<sup>11</sup></b> | <b>P value<sup>12</sup></b> | <b>Interpretation<sup>13</sup></b>                               |
|--|--|---|--------------------------------------|--|--|-----------------------------|--|
| A. I. duPont Hospital for Children                   | 883  | 1307                                      | 0.68                                 | 0.48                                       | 91%  | 0.0000                      | Utilization ratio is significantly higher than NHSN ratio        |
| Christiana Care Health System Christiana             | 960  | 1546                                      | 0.62                                 | 0.61                                       | 44%  | 0.2293                      | Utilization ratio is not significantly different than NHSN ratio |
| Christiana Care Health System – Wilmington Hospital  | 293  | 473                                       | 0.62                                 | 0.59                                       | 54%  | 0.1336                      | Utilization ratio is not significantly different than NHSN ratio |
| St. Francis Hospital                                 | No report                                      |   |                                      |  |  |                             |  |
| BayHealth Medical Center – Kent General Hospital     | 405  | 959                                       | 0.42                                 | 0.39                                       | 59%  | 0.0196                      | Utilization ratio is significantly higher than NHSN ratio        |
| BayHealth Medical Center – Milford Memorial Hospital | 217  | 519                                       | 0.42                                 | 0.39                                       | 59%  | 0.0967                      | Utilization ratio is not significantly different than NHSN ratio |
| Beebe Medical Center                                 | 389  | 740                                       | 0.53                                 | 0.39                                       | 75%  | 0.0000                      | Utilization ratio is significantly higher than NHSN ratio        |
| Nanticoke Memorial Hospital                          | 317  | 493                                       | 0.64                                 | 0.39                                       | 87%  | 0.0000                      | Utilization ratio is significantly higher than NHSN ratio        |

<sup>7</sup> The total number of days of exposure to the device (central line) by all of the patients in the selected population (ICU) during the selected time period (2008).

<sup>8</sup> The total number of days that patients are in the location during the selected time period.

<sup>9</sup> Central line days/patient days

<sup>10</sup> Ratio for all participating NHSN hospitals of that location type (the patient care area to which a patient is assigned while receiving care while in the facility).

<sup>11</sup> An estimate of where the local facility ratio falls on the distribution of the ratio for all facilities of that type of location. For example, a percentile of 75% means that 75% of NHSN hospitals were below this ratio.

<sup>12</sup> The probability value from a significance test comparing the local hospital to the NHSN aggregate ratio.

<sup>13</sup> Significance criteria is p<0.05 (95% confidence)